In the Claims:

1. (Currently Amended) A conveyor screw having a plurality of screw flights, each of which extends in a helical path about a longitudinal axis, wherein at least two of the screw flights extend in parallel from an inlet end part of the conveyor screw to an outlet end part of the conveyor screw, wherein outer edges of the at least two of the screw flights extend a different radial distance from the longitudinal axis, wherein at least a radially shorter of the screw flights is continuous along the full length thereof, and wherein the radially shorter of the screw flights extends in a range of 0.85 to 0.98 times the radius of the radially longer of the screw flights.

2. (Previously Presented) A conveyor screw according to claim 1, wherein the radially shorter of the screw flights extends from substantially the same longitudinal position of the inlet end part of the conveyor screw as the radially longer of the screw flights.

3. (Previously Presented) A conveyor screw according to claim 1, wherein the radially shorter of the screw flights extends from the inlet end part and along the conveyor screw for between 5% and 65% of the total length thereof.

4. (Previously Presented) A conveyor screw according to claim 1, wherein at least two of the radially shorter of the screw flights extend from the inlet end part and for different longitudinal distances from the inlet end part.

5. (Previously Presented) A conveyor screw according to claim 4, wherein the difference in the longitudinal distances from the inlet end part of said screw flights amounts to from 8% to 50% of the total length of the conveyor screw.

6. (Currently Amended) A conveyor screw according to claim 1, wherein the pitch of the screw flights at the inlet end of the conveyor screw is 0.9 to 1.4.

7. (Previously Presented) A conveyor screw according to claim 1, wherein the pitch of the screw flights is reduced along the longitudinal direction of the conveyor screw to 0.7 to 1 at an outlet end of the conveyor screw.

8. (Previously Presented) A conveyor screw according to claim 1, wherein everywhere along the longitudinal direction of the conveyor screw, at least one screw flight extends to a given highest radius, so that the complete inner wall of a cylindrical cavity in which the conveyor screw is placed, is scraped by rotation of the conveyor screw.

9. (Previously Presented) A conveyor screw according to claim 1, wherein the screw flights extending the highest radial distance from the longitudinal axis progress discontinuously in the longitudinal direction, so that a peripherally extending opening exists between these screw flights at least at one position along the longitudinal direction.

10. (Previously Presented) A conveyor screw according to claim 9, wherein said opening or openings extend over 120 to 240° of the periphery.

11. (Currently Amended) A conveyor comprising a stationary part having an inner surface, which closely encloses a conveyor screw having a plurality of screw flights, each of which extends in a helical path about a longitudinal axis, wherein at least two of the screw flights extend in parallel from an inlet end part of the conveyor screw and are continuous along the full length thereof, wherein outer edges of the at least two of the screw flights extend a different radial distance from the longitudinal axis, and wherein the radially shorter of the screw flights extends in a range of 0.85 to 0.98 times the radius of the longer screw flight, drive means for rotating the conveyor screw about the longitudinal axis thereof, and inlet and outlet to direct a mass to the inlet end of the conveyor screw and from its outlet end, respectively.

12. (Currently Amended) An apparatus for making ice cream, comprising a through-flow freezer having an inner surface, which closely encloses a conveyor screw, having a

plurality of screw flights, each of which extends in a helical path about a longitudinal axis, wherein at least two of the screw flights in parallel from an inlet end part of the conveyor screw, wherein outer edges of the at least two of the screw flights extend a different radial distance from the longitudinal axis, and wherein a radially shorter of the screw flights extends in a range of 0.85 to 0.98 times the radius of the radially longer screw flight and is continuous along the full length thereof, drive means for rotating the conveyor screw about the longitudinal axis thereof, cooling means for cooling the inner surface, an inlet for directing an ice cream mass to the inlet end part of the conveyor screw and an and outlet for receiving the ice cream mass from an outlet end of the conveyor screw, and wherein the cooling means are adapted to cool down a through-flowing ice cream mass, which enters at a temperature of 4° C to 25° C, to a temperature of 0° C.

13. (Cancelled).

14. (Previously Presented) An apparatus according to claim 12, wherein the drive means is adapted to drive the conveyor screw with from 10 to 50 rotations per minute, preferably with from 20 to 35 rotations per minute.

15. (Currently Amended) Method of making an ice cream mass, wherein, after an ice cream mass is fed into the inlet of an apparatus comprising a through-flow freezer having an inner surface, which closely encloses a conveyor screw, having a plurality of parallel screw flights, each of which extends in a helical path about a longitudinal axis, wherein at least two of the screw flights extend from an inlet end part of the conveyor screw, wherein outer edges of the at least two of the screw flights extend a different radial distance from the longitudinal axis, and wherein a radially shorter of the screw flights extends in a range of 0.85 to 0.98 times the radius of the radially longer screw flight, drive means for rotating the conveyor screw about the longitudinal axis thereof, cooling means for cooling the inner surface, an inlet for directing an ice cream mass to the inlet end part of the conveyor screw and an [[and]] outlet for receiving the ice cream mass from an outlet end of the conveyor screw, wherein an ice cream mass is fed into the inlet of the apparatus, wherein the ice cream mass is cooled

down by said cooling means from an entering temperature of 4° C to 25° C to a temperature below 0°C as it is conveyed by the conveyor screw from the inlet end part of the conveyor screw to the outlet of the apparatus, and wherein the radially shorter screw flight assists with the conveyance of a part of the ice cream mass without affecting an ice layer created on the inner surface of the through-flow freezer.

16. (Previously Presented) An apparatus according to claim 12, wherein the radially shorter of the screw flights extends from the inlet end part from substantially the same longitudinal position of the conveyor screw as the radially longer screw flight.

17. (Previously Presented) An apparatus according to claim 12, wherein the radially shorter of the screw flights extends from the inlet end part and along the conveyor screw for between 5% and 65% of the total length thereof.

18. (Previously Presented) An apparatus according to claim 12, wherein at least two of the radially shorter of the screw flights extend from the inlet end part and for different longitudinal distances from the inlet end part.

19. (Previously Presented) An apparatus according to claim 18, wherein the difference in the longitudinal distances from the inlet end part of said screw flights amounts to from 8% to 50% of the total length of the conveyor screw.

20. (Previously Presented) An apparatus according to claim 12, wherein the pitch of the screw flights at the inlet end of the conveyor screw is 0.9 to 1.4.

21. (Previously Presented) An apparatus according to claim 12, wherein the pitch of the screw flights is reduced along the longitudinal direction of the conveyor screw to 0.7 to 1 at an outlet end of the conveyor screw.

22. (Previously Presented) An apparatus according to claim 12, wherein everywhere along the longitudinal direction of the conveyor screw, at least one screw flight extends to a given highest radius, so that the complete inner wall of a cylindrical cavity in which the conveyor screw is placed, is scraped by rotation of the conveyor screw.

23. (Previously Presented) An apparatus according to claim 1, wherein the screw flights extending the highest radial distance from the longitudinal axis progress discontinuously in the longitudinal direction, so that a peripherally extending opening exists between these screw flights at least at one position along the longitudinal direction.

24. (Previously Presented) An apparatus according to claim 23, wherein said opening or openings extend over 120 to 240° of the periphery.